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ACADEMICIAN GRIGORIY SAMUILOVICH LANDSBERG

On 27 January in the Moscow Club of Scientists, Academy of Sciences USSR, an open conference of the Scientific Council of the Physics Institute imeni P. N. Lebedev, Academy of Sciences USSR, was held to celebrate the 60th birthday of G. S. Landsberg. This conference was attended by various representatives of Soviet scientific societies, institutes, and industries.

The meeting was opened by Academician S. I. Vavilov who characterized G. S. Landsberg as one of the leading Soviet scientists, well-known in the USSR and abroad.

The main activities of G. S. Landsberg were in the field of optics. He was a great experimenter and obtained results of great fundamental significance. It is sufficient to note his researches with Academician L. I. Mandel'shtam in which they discovered the phenomenon of combination dispersion of light. This discovery was one of the most important in the history of physics during the last 10 years, and was quickly utilized by Soviet science.

Together with a large group of his students, Landsberg has conducted much work in the field of atomic and molecular spectral analysis and its application in industry. As a result of this work, he is known as one of the foremost spectroscopic analysts.

Landsberg has also achieved fame through his training programs for young physicists, particularly in such courses as optics and applied spectroscopy.

After S. I. Vavilov's speech, Professor S. L. Mandel'shtam briefly described Landsberg's activities as a scientist and educator. Mandel'shtam's speech dealt with Landsberg's two main studies: (1) molecular dispersion of light, and (2) spectral analysis.

The molecular dispersion of light was initially studied by Landsberg with Mandel'shtam more than 25 years ago. The first researches were on the molecular dispersion of light in crystals. Landsberg was the first to study this phenomenon in the case of quartz having real molecular dispersion.

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On the basis of these studies on the dispersion of light in crystals, Landsberg and Mandel'shtam announced in 1928 a new phenomenon known as combination dispersion of light. It is difficult to evaluate fully the contribution of this theory to present-day physics, chemistry, and other sciences. At present, the phenomenon of combination dispersion of light and its applications are being utilized by many researchers throughout the world. It is one of the physicists' most important and valuable methods for studying the structure of matter.

This method of combination dispersion of light gained particularly wide development by Landsberg and his school with respect to studies on the phenomena of intermolecular interaction. It was due to this method that the first full studies could be completed on the so-called "hydrogen bond." Studies were also conducted on the so-called "second order" and nonlinear intermolecular forces.

In recent years Landsberg and many of his students have been attempting to utilize combination dispersion of light as a method for analyzing qualitatively and quantitatively the composition of organic compounds, for example, motor fuels. Due to the soundness of the fundamental theory of the combination dispersion of light, it has been adopted as an important analytic method.

In 1932, Landsberg and some of his students undertook to study spectral analysis and its practical application in USSR industries. With a whole army of Soviet spectroscopists, he worked out the physical fundamentals of spectral analysis and developed special apparatus for simultaneous multiple analysis. They also were able to introduce methods of spectral analysis into industrial practice. All Landsberg's works in the field of spectral analysis, as well as his organization of research work in this field, are supervised by the Commission on Spectroscopy, Department of Physicomathematical Sciences, Academy of Sciences USSR. Landsberg is organizer of his commission and its permanent chairman. In 1940 he was awarded the Stalin Prize for his work in spectral analysis.

Landsberg has also been very active in training young physicists. For the past 25 years he has been giving a special course in higher schools and supervising the work of many students, associates, and aspirants at the institute; he has also given invaluable aid to many physicists, chemists, and engineers who come to him with various problems. A great number of Landsberg's students are now working independently and are becoming famous.

In 1945, Landsberg was awarded the Order of Lenin by the USSR government for achievements in the field of the development of sciences in the USSR.

Various felicitations and congratulatory messages were sent to G. S. Landsberg from the Presidium of the Academy of Sciences USSR through Academician I. G. Petroviskiy, from the Department of Physicomathematical Sciences through Academician D. V. Skobel'tsyn, from the Department of Technical Sciences through Academician B. A. Vvedenskiy, from the Department of Chemical Sciences through Academician I. I. Chernyayev, from the Ministry of Metallurgical Industries through A. A. Yel'yanov, as well as from many other institutes of the Academy of Sciences USSR, affiliated institutes, industries, and higher educational enterprises. Many congratulatory messages and telegrams were also sent to him in care of the conference. The session closed with a heartfelt message of thanks from Landsberg.

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